

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027262**Date Inspected:** 01-Mar-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG/Tower**Summary of Items Observed:**

At the start of the shift this Quality Assurance Lead Inspector (QAI) traveled to the SAS project site and observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) Quality Control (QC) personnel. The observations and inspections were performed as noted below:

A). This Quality Assurance Lead Inspector (QALI) assigned the QA Inspectors to the following, but not limited to the work station(s) listed , to observe the welding and the QC inspection of the following:

Joselito Lizardo-Tower, at the 9 Meter (Observed the welding, QC inspection and testing of diaphragm plates and fit-up of the drop-in plates).

Ken Riley-OBG W12/W13 and W13/W14 field splices (Observation of fit-up and QC inspection of stiffener plates @ longitudinal stiffeners, See Summary of Conversations).

Skyway-No work

NOTE: See QA daily Weld Inspection Reports (WIR) and NDE reports for additional information and details.

**Quality Assurance Lead Inspector (QALI) Summary**

This QA Lead Inspector (QALI) observed the QA Inspector's Joselito Lizardo and Ken Riley monitor the work performed by the QC inspectors at random intervals and also observed the QA Inspectors verify the welding

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parameters, the minimum preheat and the maximum interpass temperatures for compliance with the contract specifications. The QAI's utilized a Fluke 337 clamp meter to measure the electrical welding parameters, Tempil Heat Indicators and/or a Fluke 63 IR Thermometer for verifying the preheat and interpass temperatures. At the conclusion of the shift, this QA Lead Inspector discussed and reviewed the work performed by the QAI's in regards to the various observations and the verifications of the WPS's, consumables, welding parameters, preheat and interpass temperatures. The QAI observations of the QC inspection and verification of the welding parameters performed on this date appeared to comply with the contract specifications and no issues were noted.

## Tower-QAI Observations

The QAI observed the Submerged Arc Welding (SAW) process of the diaphragm plate to tower skin plate Tee Joint identified as Weld Number (WN): 119. The welding was performed by the welding operator Daniel Ieraci ID-3232 utilizing the Welding Procedure Specification (WPS) ABF-WPS-D15-40462B-1 Rev. 0. The WPS was also used by the Quality Control (QC) Inspector Fred Von Hoff to monitor the welding and perform QC inspection for compliance. The QAI observed Mr. Von Hoff verify the welding parameters and were noted as follows: 550 amps, 32.5 volts and a travel speed measured at 385 mm per minute with the heat input calculated at 2.77 kJ/mm. The minimum preheat temperature of 140 degrees Celsius and the maximum interpass temperature of 230 degrees Celsius were observed and verified by this QAI. The in process welding appeared to be in compliance with contract specifications.

This QALI continued the daily review of field inspection reports and update of the field document control tracking records regarding the Orthotropic Box Girders (OBG, Longitudinal and Transverse "A" Deck Stiffeners, Deck Access Holes and the Tower Shear plates).

See attached digital photographs, below, for some of the work observed during this shift.



## Summary of Conversations:

There were general conversations with Quality Control Lead Inspector, Bonifacio Daquinag, Jr., at the start of the shift regarding the location of welding, inspection personnel scheduled for this shift.

## Comments

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Reyes,Danny	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell,Bill	QA Reviewer

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